Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Radiation therapy for oropharyngeal squamous cell carcinoma: executive summary of an ASTRO evidence-based clinical practice guideline.

Bibliographic Source(s)

Sher DJ, Adelstein DJ, Bajaj GK, Brizel DM, Cohen EEW, Halthore A, Harrison LB, Lu C, Moeller BJ, Quon H, Rocco JW, Sturgis EM, Tishler RB, Trotti A, Waldron J, Eisbruch A. Radiation therapy for oropharyngeal squamous cell carcinoma: executive summary of an ASTRO evidence-based clinical practice guideline. Pract Radiat Oncol. 2017 Jul-Aug;7(4):246-53. [30 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

NEATS Assessment

National Guideline Clearinghouse (NGC) has assessed this guideline's adherence to standards of trustworthiness, derived from the Institute of Medicine's report Clinical Practice Guidelines We Can Trust.

= Poor = Fair = Good = Very Good = Excellent

Assessment	Standard of Trustworthiness
NO	Disclosure of Guideline Funding Source
	Disclosure and Management of Financial Conflict of Interests
	Guideline Development Group Composition
YES	Multidisciplinary Group

UNKNOWN	Methodologist Involvement
▮▮▮▮▮	Patient and Public Perspectives
	Use of a Systematic Review of Evidence
▮▮▮▮▯	Search Strategy
▮▮▮▮▮	Study Selection
▮▮▮▮▮	Synthesis of Evidence
	Evidence Foundations for and Rating Strength of Recommendations
▮▮▮▮▮	Grading the Quality or Strength of Evidence
▮▮▮▮▮	Benefits and Harms of Recommendations
▮▮▮▮▮	Evidence Summary Supporting Recommendations
▮▮▮▮▮	Rating the Strength of Recommendations
▮▮▮▮▮	Specific and Unambiguous Articulation of Recommendations
▮▮▮▮▯	External Review
▮▮▮▮▮	Updating

Recommendations

Major Recommendations

Definitions for the strength of recommendations (Strong, Conditional) and quality of evidence (High, Moderate, and Low) are provided at the end of the "Major Recommendations" field.

Key Question (KQ) 1: When is it appropriate to add systemic therapy to definitive radiotherapy in the treatment of oropharyngeal squamous cell carcinoma (OPSCC)?

In the scenario of stage IVA-B disease?

Statement KQ1A: Concurrent high-dose intermittent cisplatin should be delivered to patients with stage IVA-B OPSCC receiving definitive radiotherapy.

> Recommendation strength: Strong
> Quality of evidence: High

Statement KQ1B: Concurrent cetuximab or carboplatin-fluorouracil should be delivered to patients with stage IVA-B OPSCC receiving definitive radiotherapy who are not medically fit for high-dose cisplatin.

> Recommendation strength: Strong
> Quality of evidence: High

Statement KQ1C: Concurrent weekly cisplatin may be delivered to patients with stage IVA-B OPSCC

receiving definitive radiotherapy who are not medically fit for high-dose cisplatin, after a careful discussion of patient preferences and the limited prospective data supporting this regimen.

Recommendation strength: Conditional
Quality of evidence: Low

Statement KQ1D: Concurrent cetuximab should not be delivered in combination with chemotherapy to patients with stage IVA-B OPSCC receiving definitive radiotherapy.

Recommendation strength: Strong
Quality of evidence: High

Statement KQ1E: Intra-arterial chemotherapy should not be delivered to patients with stage IVA-B OPSCC receiving definitive radiotherapy.

Recommendation strength: Strong
Quality of evidence: High

In the scenario of stage III disease?

Statement KQ1F: Concurrent systemic therapy should be delivered to patients with T3 N0-1 OPSCC receiving definitive radiotherapy.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ1G: Concurrent systemic therapy may be delivered to patients with T1-T2 N1 OPSCC receiving definitive radiotherapy who are considered at particularly significant risk for locoregional recurrence, after a careful discussion of patient preferences and the limited evidence supporting its use.

Recommendation strength: Conditional
Quality of evidence: Low

In the scenario of stage I-II disease?

Statement KQ1H: Concurrent systemic therapy should not be delivered to patients with stage I-II OPSCC receiving definitive radiotherapy.

Recommendation strength: Strong
Quality of evidence: Low

Key Question 2: When is it appropriate to deliver post-operative radiotherapy with and without systemic therapy following primary surgery of OPSCC?

In the scenario of positive margins and/or extracapsular nodal extension (ECE)?

Statement KQ2A: Concurrent high-dose intermittent cisplatin should be delivered with post-operative radiotherapy (PORT) to patients with positive surgical margins and/or extracapsular nodal extension; this high-risk population includes patients independent of human papillomavirus (HPV) status or the extent of extranodal tumor.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ2B: Concurrent weekly cisplatin may be delivered with PORT to patients who are considered inappropriate for standard high-dose intermittent cisplatin after a careful discussion of patient preferences and the limited evidence supporting this treatment schedule.

Recommendation strength: Conditional
Quality of evidence: Low

Statement KQ2C: For the high-risk post-operative patient unable to receive cisplatin-based concurrent chemoradiotherapy, radiotherapy alone should be routinely delivered without concurrent systemic therapy; given the limited evidence supporting alternative regimens, treatment with non-cisplatin systemic therapy should be accompanied by a careful discussion of the risks and unknown benefits of the combination.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ2D: Patients treated with PORT should not receive concurrent weekly carboplatin.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ2E: Patients treated with PORT should not receive cetuximab, either alone or in combination with chemotherapy, although such regimens are currently under investigation.

Recommendation strength: Strong
Quality of evidence: Low

Statement KQ2F: Patients treated with PORT should not routinely receive concurrent weekly docetaxel given the limited evidence supporting its use, although such regimens are currently under investigation.

Recommendation strength: Strong
Quality of evidence: Low

Statement KQ2G: Patients treated with PORT should not receive concurrent mitomycin-C, alone or with bleomycin, given the limited evidence and experience supporting its use.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ2H: Post-operative chemotherapy should not be delivered alone or sequentially with PORT.

Recommendation strength: Strong
Quality of evidence: High

In the scenario of intermediate-risk pathologic factors such as lymphovascular invasion (LVI), perineural invasion (PNI), T3-4 disease, or positive lymph nodes?

Statement KQ2I: Patients with intermediate-risk factors should not routinely receive concurrent systemic therapy with PORT.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ2J: Patients with intermediate-risk factors whose surgical procedure and/or pathologic findings imply a particularly significant risk of locoregional recurrence may receive concurrent cisplatin-based chemotherapy after a careful discussion of patient preferences and the limited evidence supporting its use in this scenario; alternative systemic treatment regimens should only be used in the context of a clinical trial.

Recommendation strength: Conditional
Quality of evidence: Low

Statement KQ2K: PORT should be delivered to patients with pathologic T3 or T4 disease.

Recommendation strength: Strong
Quality of evidence: Low

Statement KQ2L: PORT should be delivered to patients with pathologic N2 or N3 disease.

Recommendation strength: Strong
Quality of evidence: Low

Statement KQ2M: PORT may be delivered to patients with pathologic N1 disease after a careful discussion of patient preferences and the limited evidence of outcomes following surgery alone in this scenario.

Recommendation strength: Conditional
Quality of evidence: Low

Statement KQ2N: PORT may be delivered to patients with LVI and/or PNI as the only risk factor(s) after a careful discussion of patient preferences and the limited evidence of outcomes following surgery alone in this scenario.

Recommendation strength: Conditional
Quality of evidence: Low

In the scenario of no pathologic risk factors?

Statement KQ2O: PORT may be delivered to patients without conventional adverse pathologic risk factors only if the clinical and surgical findings imply a particularly significant risk of locoregional recurrence, after a careful discussion of patient preferences and the potential harms and benefits of radiotherapy.

Recommendation strength: Conditional
Quality of evidence: Low

Key Question 3: When is it appropriate to use induction chemotherapy in the treatment of OPSCC?

Statement KQ3A: Induction chemotherapy should not be routinely delivered to patients with OPSCC.

Recommendation strength: Strong
Quality of evidence: High

Key Question 4: What are the appropriate dose, fractionation, and volume regimens with and without systemic therapy in the treatment of OPSCC?

In the scenario of definitive non-surgical therapy?

Statement KQ4A: A dose of 70 Gy over 7 weeks should be delivered OPSCC oropharyngeal squamous cell carcinoma selected to receive standard, once-daily definitive radiotherapy.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ4B: The biologically equivalent dose of approximately 50 Gy in 2 Gy fractions or slightly higher should be delivered electively to clinically and radiographically negative regions at risk for microscopic spread of tumor.

Recommendation strength: Strong
Quality of evidence: Low

Statement KQ4C: Altered fractionation should be used in patients with stage IVA-B OPSCC treated with definitive radiotherapy who are not receiving concurrent systemic therapy.

Recommendation strength: Strong
Quality of evidence: High

Statement KQ4D: Either accelerated radiotherapy or hyperfractionated radiotherapy may be used in patients with OPSCC treated with altered fractionation definitive radiotherapy after a careful discussion of patient preferences and the limited evidence supporting one regimen over the other.

Recommendation strength: Conditional
Quality of evidence: High

Statement KQ4E: Either standard, once-daily radiotherapy or accelerated fractionation may be used when treating OPSCC with concurrent systemic therapy after a careful discussion of patient preferences and the risks and benefits of both approaches.

Recommendation strength: Conditional
Quality of evidence: High

Statement KQ4F: Altered fractionation should be used in patients with T3 N0-1 OPSCC treated with definitive radiotherapy who do not receive concurrent systemic therapy.

Recommendation strength: Strong
Quality of evidence: Moderate

Statement KQ4G: Altered fractionation may be used in patients with T1-2 N1 or T2 N0 OPSCC treated with definitive radiotherapy alone who are considered at particularly significant risk of locoregional recurrence, after a careful discussion of patient preferences and the limited evidence supporting its use in this scenario.

Recommendation strength: Conditional
Quality of evidence: Low

Definitions

Strength of Recommendation

Recommendation strengths were dichotomized as "strong" or "conditional." Strong recommendations were made when the panel was very confident that the benefits of the intervention clearly outweighed the harms; conditional recommendations were made when the ratio between risks and benefits was more balanced. Per the GRADE formalism, a "strong" recommendation implies that the panelists believe "all or almost all informed people would make the recommended choice for or against an intervention." A "conditional" recommendation implies that "most informed people would choose the recommended course of action, but a substantial number would not."

Quality of Evidence

High: The panel is very confident that the true effect lies close to that of the estimate of the effect.
Moderate: The panel is moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.
Low: The panel's confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Oropharyngeal squamous cell carcinoma (OPSCC)

Guideline Category

Management

Treatment

Clinical Specialty

Oncology

Otolaryngology

Radiation Oncology

Intended Users

Physicians

Guideline Objective(s)

To systematically review the evidence for effective treatment of oropharyngeal squamous cell carcinoma (OPSCC) with definitive or adjuvant radiation therapy (RT)

Note: The panel acknowledges the interest in and established literature on the value of brachytherapy in OPSCC, but the purview of this guideline was restricted to the use of external beam radiation therapy.

Target Population

Patients with oropharyngeal squamous cell carcinoma (OPSCC)

Interventions and Practices Considered

1. Addition of systemic therapy to definitive radiation therapy (RT)
    - Cisplatin
    - Cetuximab or carboplatin-fluorouracil
2. Postoperative RT with and without systemic therapy
3. Induction chemotherapy (not recommended routinely)
4. Consideration of dose, fractionation, and volume regimens for RT with and without systemic therapy

Major Outcomes Considered

- Overall and progression-free survival
- Recurrence rates
- Toxicity
- Quality of life

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Literature Review

A systematic review of the literature was performed in early 2015 to form the basis of the guideline. An analytic framework incorporating the population, interventions, comparators, and outcomes (PICO) was first used to develop and refine search strategies for each key question (KQ). The searches were conducted in MEDLINE PubMed and designed to identify studies published in English between January 1990 and December 2014 that evaluated adults with oropharyngeal squamous cell carcinoma (OPSCC) who were treated with primary radiation therapy (RT), adjuvant RT, or RT with concurrent systemic therapy. Both MeSH terms and text words were utilized and terms common to all searches included: *oropharyngeal neoplasms*, *carcinoma squamous cell*, and *radiotherapy*. Additional terms specific to each KQ were also incorporated. The outcomes of interest were overall and progression-free survival, recurrence rates, toxicity, and quality of life. The electronic searches were supplemented by hand searches.

A total of 2615 abstracts were retrieved. The articles were then reviewed by American Society for Radiation Oncology (ASTRO) staff, the co-chairs of the guideline, and the writing groups for each KQ. During the first round of screening, 2452 articles were eliminated based on the inclusion and exclusion criteria. The inclusion criteria were: patients 18 years or older, all stages of oropharyngeal cancer, and publication date 1990 to 2014. Included treatments were: primary RT, primary chemoradiation (CRT), primary surgery with adjuvant RT with or without systemic therapy, or induction chemotherapy (IC) followed by radiation therapy or CRT. The exclusion criteria were: pre-clinical or non-human studies, case reports/series, non-English language, available in abstract only, pediatric patients, distant metastasis, non-squamous cell carcinoma, and otherwise not clinically relevant to the key clinical questions. The panelists on KQ 1, 3 and 4 generally only considered articles in which the percentage of OPSCC patients was greater than 50%; the panelists on KQ2 did not have an absolute threshold because OPSCC patients typically comprise a minority of individuals in post-operative studies.

Number of Source Documents

Ultimately, 119 full-text articles were chosen for inclusion and abstracted into detailed literature tables to provide supporting evidence for the clinical guideline recommendations.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence

> High: The panel is very confident that the true effect lies close to that of the estimate of the effect.
> Moderate: The panel is moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different
> Low: The panel's confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

The studies were abstracted into detailed literature tables to provide supporting evidence for the clinical guideline recommendations.

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology defines "quality of evidence" as a rating that indicates "the extent of our confidence that the estimates of an effect are adequate to support a particular decision or recommendation." The quality of evidence underlying each recommendation statement was categorized as either high, moderate, low. Although GRADE does provide for a "very low" quality, the panel did not consider this rating for consistency with prior American Society for Radiation Oncology (ASTRO) guidelines. Refer to the "Rating Scheme for the Strength of the Evidence" field for a description of each quality level.

Methods Used to Formulate the Recommendations

Expert Consensus (Delphi)

Description of Methods Used to Formulate the Recommendations

Process

In accordance with established American Society for Radiation Oncology (ASTRO) policy, the Guidelines Subcommittee recruited a guideline panel of recognized experts in oropharyngeal cancer, including radiation oncologists, medical oncologists, otolaryngologists, and a patient advocate. Panel members were drawn from academic settings, private practice, and residency. Four specific key questions (KQs) were proposed, which addressed: (KQ1) the addition of concurrent systemic therapy to RT, (KQ2) the delivery of post-operative radiation therapy (PORT) with and without systemic therapy following primary surgery, (KQ3) the use of induction chemotherapy (IC), and (KQ4) the optimal dose-fractionation regimens with and without systemic therapy, as well as nodal volumes for primary tonsillar cancer. In September 2014, the ASTRO Board of Directors approved the proposal and panel membership.

Through a series of communications by conference calls and emails between December 2014 and February 2016, the guideline panel, with ASTRO staff support, completed the systematic review, created literature tables, and formulated the recommendation statements and narratives for the guideline. The members of the task force were divided into four writing groups by KQs, according to their areas of expertise.

Grading of Evidence and Recommendations and Consensus Methodology

Guideline recommendation statements were generated from this literature review, with high-quality evidence forming the basis of the statements whenever possible, in accordance with Institute of Medicine (IOM) standards; expert opinion supplemented the evidence base if high-level data were not available. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology was followed in the construction and assessment of the recommendation statements. GRADE is an explicit, systematic approach to defining the recommendation strength and quality of evidence.

Recommendation strengths were dichotomized as "strong" or "conditional" (see the "Rating Scheme for the Strength of the Recommendations" field). "When a recommendation is weak, clinicians and other health care providers need to devote more time to the process of shared decision making by which they ensure that the informed choice reflects individual values and preferences." The importance of patient

preferences and shared decision-making was highlighted in each conditional recommendation statement.

The degree of consensus among the panelists on each recommendation statement was evaluated through a modified Delphi approach. A survey was sent by ASTRO staff to the panel members, who rated their agreement with each recommendation on a five-point Likert scale, ranging from strongly disagree to strongly agree (higher score corresponds with stronger agreement). A pre-specified threshold of ≥75% of raters was determined to indicate when consensus was achieved. If a recommendation statement did not meet this threshold, it was modified and re-surveyed, or excluded from the guideline. The final set of recommendation statements were achieved after 2 surveys.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendation

Recommendation strengths were dichotomized as "strong" or "conditional." Strong recommendations were made when the panel was very confident that the benefits of the intervention clearly outweighed the harms; conditional recommendations were made when the ratio between risks and benefits was more balanced. Per the Grading of Recommendations Assessment, Development and Evaluation (GRADE) formalism, a "strong" recommendation implies that the panelists believe "all or almost all informed people would make the recommended choice for or against an intervention." A "conditional" recommendation implies that "most informed people would choose the recommended course of action, but a substantial number would not."

Cost Analysis

A formal cost analysis was not performed and published analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The initial draft of the manuscript was reviewed by three expert reviewers (see the "Acknowledgements" section in the original guideline document) and American Society for Radiation Oncology (ASTRO) legal counsel. A revised draft was placed on the ASTRO Web site in April 2016 for a six-week period of public comment. Following integration of the feedback, the document was submitted for approval to the ASTRO Board of Directors in September 2016.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

The data are consistent that concurrent chemotherapy in combination with radiation therapy (RT) improves locoregional recurrence (LRC) for patients with locally advanced oropharyngeal squamous cell carcinoma, treated with either conventional or altered fractionation (AltFX). In most of these studies, the reduction in locoregional progression translated into a significant and meaningful overall survival (OS) benefit. Although chemotherapy significantly increased acute toxicities, late effects were comparable to treatment with RT alone, such that the survival benefits of concurrent therapy clearly outweigh the non-trivial but short-term risks. Since the vast majority of the patients in these trials presented with stage IV disease, concurrent systemic therapy should be delivered in this population of patients.

Refer to the "Narrative" sections in the supplemental material (see the "Availability of Companion Documents" field) for information on benefits found in specific trials.

Potential Harms

- While most of the phase III randomized studies found for Key Question 1 show that adding chemotherapy to radiation therapy (RT) improves survival, the combination clearly increased the risk of severe, acute toxicities. Refer to the "Complications" section in the supplemental material (see the "Availability of Companion Documents" field) for additional information.
- Xerostomia, a potential side effect to radiation when the salivary glands are damaged, can affect basic functions like chewing, swallowing and breathing; senses such as taste and smell; and can significantly alter the patient's appearance and voice.
- The addition of chemotherapy to aggressive altered fractionation (AltFX) approaches must be considered with caution given the potential for increased acute and late effects associated with this approach.

Refer to the "Narrative" sections in the supplemental material (see the "Availability of Companion Documents" field) for information on toxicity results found in specific trials.

Contraindications

Contraindications

Cetuximab should not be combined with cytotoxic chemotherapy unless on a clinical trial. Contraindications to unilateral treatment include significant involvement of soft palate, base of tongue and/or T3 primary size.

Qualifying Statements

Qualifying Statements

- Adherence to this guideline will not ensure successful treatment in every situation. Furthermore, this guideline should not be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed to obtaining the same results. The physician must make the ultimate judgment regarding the propriety of any specific therapy in light of all the circumstances presented by the individual patient. The American Society for Radiation Oncology (ASTRO) assumes no liability for the information, conclusions, and findings contained in its guidelines. In addition, this guideline cannot be assumed to apply to the use of these interventions performed in the context of clinical trials, given that clinical studies are designed to evaluate or validate innovative approaches in a disease for which improved treatments are needed or are being explored.

- The guideline panel recommends that providers discuss with patients' shortly after diagnosis what to expect regarding symptoms, treatment-related toxicities, outcomes including risk of recurrence, and effects of the disease and the treatments on quality of life.
- This guideline was prepared on the basis of information available at the time the panel was conducting its research and discussions on this topic. There may be new developments that are not reflected in this guideline and that may, over time, be a basis for ASTRO to consider revisiting and updating the guideline.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Patient Resources

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Sher DJ, Adelstein DJ, Bajaj GK, Brizel DM, Cohen EEW, Halthore A, Harrison LB, Lu C, Moeller BJ, Quon H, Rocco JW, Sturgis EM, Tishler RB, Trotti A, Waldron J, Eisbruch A. Radiation therapy for oropharyngeal squamous cell carcinoma: executive summary of an ASTRO evidence-based clinical practice guideline. Pract Radiat Oncol. 2017 Jul-Aug;7(4):246-53. [30 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2017 Jul-Aug

Guideline Developer(s)

American Society for Radiation Oncology - Professional Association

Guideline Developer Comment

Not applicable

Source(s) of Funding

American Society of Radiation Oncology

Guideline Committee

Oropharyngeal Squamous Cell Carcinoma Guideline Panel

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

Conflict of Interest (COI) Disclosure Statement

The guideline panelists were required to complete disclosure statements before initiating work on this

project. These statements are maintained at the American Society for Radiation Oncology (ASTRO) Headquarters in Arlington, VA, and pertinent disclosures are published within the guideline. The ASTRO Conflict of Interest Disclosure Statement seeks to provide a broad disclosure of outside interests. The guideline panel chairs (AE and DJS), in concert with the ASTRO COI review committee, ASTRO legal counsel, and ASTRO guidelines subcommittee chair and vice-chair, reviewed these disclosures and approved the participation of all task force members for all key questions.

DJS: Research funding and honoraria from Varian Medical. EEC: Speaker Bureau for AstraZeneca, Consultant for Eisai, Merck, Human Longevity Inc., Pfizer, and Merck Serono. RBT: Advisory Board for EMD Serrono, Advisory Board for Izun Pharmaceuticals. The panel chairs and ASTRO Guidelines Subcommittee reviewed these disclosures and took measures to mitigate the impact of potential conflicts.

Guideline Endorser(s)

American Society of Clinical Oncology - Medical Specialty Society

European Society for Radiotherapy & Oncology - Medical Specialty Society

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the Practical Radiation Oncology Web site.

Availability of Companion Documents

The following are available:

Radiation therapy for oropharyngeal squamous cell carcinoma: an ASTRO evidence-based clinical practice guideline. Supplemental material. Pract Radiat Oncol. 2017 Jul-Aug. 97 p. Available from the Practical Radiation Oncology Web site.

The management of head and neck cancers. Continuing medical education (CME) course. Available from the American Society for Radiation Oncology Web site.

Patient Resources

The following is available:

Radiation therapy for head and neck cancers. Patient brochure. Arlington (VA): American Society for Radiation Oncology (ASTRO); 2015. 6 p. Available from the American Society for Radiation Oncology Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI Institute on July 25, 2017. The information was verified by the guideline developer on July 27, 2017.

This NEATS assessment was completed by ECRI Institute on July 25, 2017. The information was verified by the guideline developer on July 27, 2017.

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